

21. The method of claim 20, further comprising polymerizing the polymerizable composition.
22. The method of claim 20, wherein the polymerizable composition is a liquid.
23. The method of claim 20, wherein the polymerizable composition is a low viscosity liquid.
24. The method of claim 20, wherein the polymerizable composition is a low viscosity liquid and wherein the viscosity of the polymerizable composition is such that a pattern forms in the polymerizable composition when the electric field is applied in less than about 1 second.
25. The method of claim 20, further comprising polymerizing the polymerizable composition, wherein the electric field is applied to the electrically conductive template and the substrate while polymerizing the polymerizable composition.
26. The method of claim 20, wherein the template is substantially transparent to visible and ultraviolet light.
27. The method of claim 20, wherein the substrate is substantially transparent to visible and ultraviolet light.
28. The method of claim 20, wherein the template further comprises a low-surface energy coating.
29. The method of claim 20, wherein the template further comprises a low-surface energy coating, and wherein the low-surface energy coating is a fluorine containing coating.

30. The method of claim 20, wherein the polymerizable composition is a thermally curable composition.
31. The method of claim 20, wherein the polymerizable composition is an activating light curable composition.
32. The method of claim 20, wherein the polymerizable composition comprises a photoinitiator.
33. The method of claim 20, wherein the electrically conductive template comprises indium tin oxide.
34. The method of claim 20, wherein applying the electric field to the template and the substrate causes a portion of the polymerizable composition to contact a portion of the template.
35. The method of claim 20, wherein the polymerizable composition is attracted to the template but does not contact the template when the electric field is applied to the template and the substrate.
36. The method of claim 20, further comprising polymerizing the polymerizable composition and etching the polymerized polymerizable composition.
37. The method of claim 20, wherein the substrate comprises a silicon wafer.
38. The method of claim 20, wherein the substrate comprises a GaAs wafer.

39. The method of claim 20, wherein the substrate comprises a SiGeC wafer.
40. The method of claim 20, wherein the substrate comprises a InP wafer.
41. A substrate comprising patterned structures made by the method of claim 20.
42. A method of preparing patterned structures on a substrate, comprising:  
  
applying a polymerizable composition to a surface of the substrate;  
  
placing an electrically conductive template proximate to the polymerizable composition;  
  
and  
  
applying an electric field between the electrically conductive template and the substrate,  
wherein the applied electric field creates an electric static force that attracts a portion of  
the polymerizable composition toward the template.
43. The method of claim 42, further comprising polymerizing the polymerizable composition.
44. The method of claim 42, further comprising polymerizing the polymerizable composition,  
wherein the electric field is applied to the electrically conductive template and the  
substrate while polymerizing the polymerizable composition.
45. The method of claim 42, wherein the polymerizable composition is an activating light  
curable composition.
46. The method of claim 42, wherein the template is substantially transparent to an activating

light.

47. The method of claim 42, wherein the substrate is substantially transparent to an activating light.
48. The method of claim 42, wherein the template further comprises a low-surface energy coating.
49. The method of claim 42, wherein the template further comprises a low-surface energy coating, and wherein the low-surface energy coating is a fluorine containing coating.
50. The method of claim 42, wherein the polymerizable composition is a thermally curable composition.
51. The method of claim 42, wherein the electrically conductive template comprises indium tin oxide.
52. The method of claim 42, wherein applying the electric field to the template and the substrate causes a portion of the polymerizable composition to contact a portion of the template.
53. The method of claim 42, wherein the polymerizable composition is attracted to the template but does not contact the template when the electric field is applied to the template and the substrate.
54. The method of claim 42, further comprising polymerizing the polymerizable composition and etching the polymerized polymerizable composition.

55. The method of claim 42, wherein the substrate comprises a silicon wafer.
56. The method of claim 42, wherein the substrate comprises a GaAs wafer.
57. The method of claim 42, wherein the substrate comprises a SiGeC wafer.
58. The method of claim 42, wherein the substrate comprises a InP wafer.
59. A substrate comprising patterned structures made by the method of claim 42.
60. A method of preparing patterned structures on a substrate, comprising:  
  
applying a liquid polymerizable composition to a surface of the substrate;  
  
positioning a template proximate to the polymerizable composition, wherein at least a portion of the template is electrically conductive; and  
  
applying an electric field between the template and the substrate, wherein the applied electric field creates an electric static force that attracts a portion of the polymerizable composition toward the template.
61. The method of claim 60, further comprising polymerizing the polymerizable composition.
62. The method of claim 60, wherein the liquid polymerizable composition is an activating light curable composition.

63. The method of claim 60, wherein the liquid polymerizable composition is a low viscosity liquid.
64. The method of claim 60, wherein the liquid polymerizable composition is a low viscosity liquid and wherein the viscosity of the liquid polymerizable composition is such that a pattern forms in the polymerizable composition when the electric field is applied in less than about 1 second.
65. A method of preparing patterned structures on a substrate, comprising:
- applying a polymerizable composition to a surface of the substrate;
- applying a plurality of forces to the substrate such that the shape of the substrate is altered;
- positioning a template proximate to the polymerizable composition, wherein at least a portion of the template is electrically conductive; and
- applying an electric field between the template and the substrate, wherein the applied electric field creates an electric static force that attracts a portion of the polymerizable composition toward the template.
66. The method of claim 65, further comprising polymerizing the polymerizable composition.
67. The method of claim 65, wherein the polymerizable composition is an activating light curable composition.

68. The method of claim 65, wherein the polymerizable composition is a low viscosity liquid.
69. The method of claim 65, wherein the polymerizable composition is a liquid.
70. The method of claim 65, wherein the liquid polymerizable composition is a low viscosity liquid and wherein the viscosity of the liquid polymerizable composition is such that a pattern forms in the polymerizable composition when the electric field is applied in less than about 1 second.
71. A method of preparing patterned structures on a substrate, comprising:  
  
applying a polymerizable composition to a surface of the substrate;  
  
applying a plurality of forces to the substrate such that the shape of the substrate is altered;  
  
placing an electrically conductive template proximate to the polymerizable composition;  
and  
  
applying an electric field between the electrically conductive template and the substrate, wherein the applied electric field creates an electric static force that attracts a portion of the polymerizable composition toward the template.
72. The method of claim 71, further comprising polymerizing the polymerizable composition.
73. The method of claim 71, wherein the polymerizable composition is an activating light curable composition.

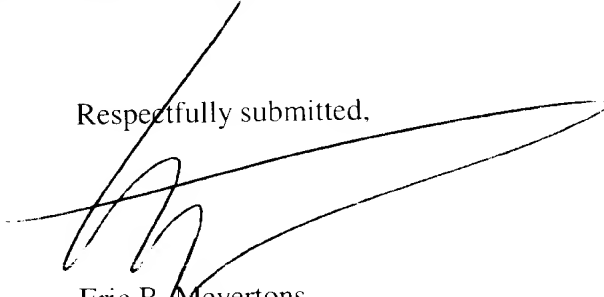
74. The method of claim 71, wherein the polymerizable composition is a low viscosity liquid.
75. The method of claim 71, wherein the polymerizable composition is a liquid.
76. The method of claim 71, wherein the liquid polymerizable composition is a low viscosity liquid and wherein the viscosity of the liquid polymerizable composition is such that a pattern forms in the polymerizable composition when the electric field is applied in less than about 1 second.
77. An apparatus for altering a shape of a substrate, comprising:
- a holder configured to couple to and support the substrate;
- a plurality of pressure application devices coupled to the holder, wherein the pressure application devices are configured to apply a deforming force to the holder such that a shape of the holder is altered during use;
- wherein the substrate is coupled to the holder such that the shape of the substrate substantially conforms to the shape of the holder during use.
78. The apparatus of claim 77, wherein the holder comprises a vacuum chuck.
79. The apparatus of claim 77, wherein the pressure application devices comprise piezoelectric actuators.



80. The apparatus of claim 77, further comprising a detector configured to measure the planarity of the substrate during use.
81. The apparatus of claim 77, wherein the substrate comprises a silicon wafer.
82. The apparatus of claim 77, wherein the substrate comprises a GaAs wafer.
83. The apparatus of claim 77, wherein the substrate comprises a SiGeC wafer.
84. The apparatus of claim 77, wherein the substrate comprises a InP wafer.

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Respectfully submitted,



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